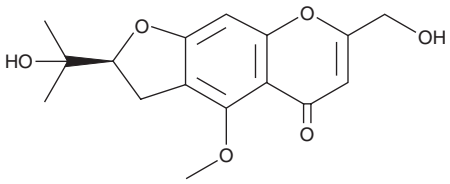
PRODUCT INFORMATION

Cimifugin

Item No. 46280

CAS Registry No.:	37921-38-3
Formal Name:	(2S)-2,3-dihydro-7-(hydroxymethyl)-2-(1-hydroxy-1-methylethyl)-4-methoxy-5H-furo[3,2-g][1]benzopyran-5-one
Synonym:	Cimitin
MF:	$C_{16}H_{18}O_6$
FW:	306.3
Purity:	≥98%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Synthetic



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Cimifugin is supplied as a solid. A stock solution may be made by dissolving the cimifugin in the solvent of choice, which should be purged with an inert gas. Cimifugin is soluble (≥10 mg/ml) in ethanol and DMSO.

Description

Cimifugin is a chromone that has been found in *S. divaricata* and has diverse biological activities.[1-4] It reduces palmitate-induced cell death in AML12 hepatocytes at 10-40 µM and reduces reactive oxygen species (ROS) levels and toll-like receptor 4 (TLR4) expression in the same cells at 40 µM.[2] It also reduces oleate-induced lipid accumulation in AML12 and HepG2 cells. Cimifugin (6.25 and 12.5 mg/kg) prevents relapse in a mouse model of house dust mite-induced asthma relapse, where it reduces the number of eosinophils in peripheral blood and the levels of IL-5 in bronchoalveolar lavage fluid (BALF).[3] It inhibits calcium influx induced by the transient receptor potential vanilloid 4 (TRPV4) agonist GSK1016790A (Item No. 17289) in HaCaT keratinocytes at 9.75 µM.[4] Topical administration of cimifugin (1.625-8.125 mM) reduces GSK1016790A-induced scratching behavior in a mouse model of psoriasis.

References

1. Patel, D.K. Biological importance of bioactive phytochemical 'Cimifugin' as potential active pharmaceutical ingredients against human disorders: A natural phytochemical for new therapeutic alternatives. *Pharmacol. Res. Mod. Chin. Med.* **7**, 100232 (2023).
2. Yang, W., Zhu, L., Lai, S., *et al.* Cimifugin ameliorates lipotoxicity-induced hepatocyte damage and steatosis through TLR4/p38 MAPK- and SIRT1-involved pathways. *Oxid. Med. Cell. Longev.* **2022**, 4557532 (2022).
3. Gu, A., Zheng, J., Wang, X., *et al.* Cimifugin relieves the relapse of allergic asthma via inhibiting ILC2 migration by targeting CCR9. *J. Ethnopharmacol.* **363**, 121429 (2026).
4. Yan, J., Ye, F., Ju, Y., *et al.* Cimifugin relieves pruritus in psoriasis by inhibiting TRPV4. *Cell Calcium* **97**, 102429 (2021).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent *via* email to your institution.

WARRANTY AND LIMITATION OF REMEDY
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